

Report Quality Evaluation

To our clients:

To ensure that the highest standards of report quality are maintained, INPUT would appreciate your assessment of this report. Please take a moment to provide your evaluation of the usefulness and quality of this study. When complete, simply fold, staple, and drop in the mail. Postage has been pre-paid by INPUT if mailed in the U.S.

Thank You.

1. Report title: **Innovative Service Offerings** (FCSP4)

2. Please indicate your reason for reading this report:

- | | | |
|---|---|---|
| <input type="checkbox"/> Required reading | <input type="checkbox"/> New product development | <input type="checkbox"/> Future purchase decision |
| <input type="checkbox"/> Area of high interest | <input type="checkbox"/> Business/market planning | <input type="checkbox"/> Systems planning |
| <input type="checkbox"/> Area of general interest | <input type="checkbox"/> Product planning | <input type="checkbox"/> Other _____ |

3. Please indicate extent report used and overall usefulness:

	Extent		Usefulness (1=Low, 5=High)				
	Read	Skipped	1	2	3	4	5
Executive Overview.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete report.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Part of report (____ %).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. How useful were:

- | | | | | | |
|----------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Data presented | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Analyses | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Recommendations..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. How useful was the report in these areas:

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Alert you to new opportunities or approaches..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cover new areas not covered elsewhere | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Confirm existing ideas | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Meet expectations..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Which topics in the report were the most useful? Why? _____

7. In what ways could the report have been improved? _____

8. Other comments or suggestions: _____

Name _____ Title _____

Department _____

Company _____

Address _____

City _____ State _____ ZIP _____

Telephone _____ Date completed _____

Thank you for your time and cooperation.

M&S 633/01 12/89

INPUT



FOLD HERE



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

First Class Permit No. 982 Mountain View, CA

POSTAGE WILL BE PAID BY ADDRESSEE

*Attention: Marketing Department***INPUT**

1280 Villa Street

Mountain View, CA 94041-9912



FOLD HERE



F E B R U A R Y 1 9 9 1

INNOVATIVE SERVICE OFFERINGS



Published by
INPUT
1280 Villa Street
Mountain View, CA 94041-1194
U.S.A.

Customer Service Program (CSP)

Innovative Service Offerings

Copyright © 1992 by INPUT. All rights reserved.
Printed in the United States of America.

No part of this publication may be reproduced or distributed in any form, or by any means, or stored in a data base or retrieval system, without the prior written permission of the publisher.

The information provided in this report shall be used only by the employees of and within the current corporate structure of INPUT's clients, and will not be disclosed to any other organization or person including parent, subsidiary, or affiliated organization without prior written consent of INPUT.

INPUT exercises its best efforts in preparation of the information provided in this report and believes the information contained herein to be accurate. However, INPUT shall have no liability for any loss or expense that may result from incompleteness or inaccuracy of the information provided.



Abstract

This report from INPUT focuses on new and innovative customer service offerings within the computer and information services industry. The objective is to review how end-user requirements are changing and how vendor offerings are accommodating those changed requirements.

Additionally, the report addresses how these changed requirements and offerings are impacting the business of the customer services firm or organization within a computer manufacturer.

The report contains 82 pages and 34 exhibits.







Table of Contents

I	Introduction	I-1
	A. Purpose and Scope	I-1
	B. Methodology	I-4
	C. Report Organization	I-6
	D. Related Reports	I-6
II	Executive Overview	II-1
	A. Scope and Definition	II-1
	B. User Demographics	II-3
	C. Vendor Considerations	II-6
	D. Summary	II-9
III	Issue Background and Definition	III-1
	A. Background and Definition	III-1
IV	User Requirements and Issues	IV-1
	A. User Demographics: Installed Base of Equipment	IV-1
	B. User Service Needs and Requirements—Traditionally Defined Services	IV-5
	C. User Participation In and Perceptions of Extended/Non-Traditional Service Offerings	IV-7
V	Vendor-Extended Service Offerings—Implementation Status	V-1
	A. Implementation of Extended/Non-Traditional Services	V-1
	B. Vendor Performance in Delivering Extended Services	V-5
	C. Vendor Initiatives	V-8



Table of Contents (Continued)

VI**Conclusions and Recommendations****VI-1****A. Summary****VI-1****B. Recommendations****VI-2**

Appendixes**A. Services Roll-Out Checklist****A-1****B. User Questionnaire****B-1****C. Vendor Questionnaire****C-1**



Exhibits

I

- | | |
|---|-----|
| -1 Application/Technology-Driven Service Market | I-2 |
| -2 Directions in Service/Product Innovation:
Repackaged/Restructured Services | I-3 |
| -3 Directions in Service/Product Innovation:
Extended/Non-Traditional Services | I-3 |
| -4 Distribution of User Sample by Industry | I-5 |
| -5 Distribution of Vendor Sample by Type of Organization | I-5 |

II

- | | |
|--|------|
| -1 Status of Current Extended/Non-Traditional
Services Market | II-2 |
| -2 Distribution of User Installed Base by Equipment Class | II-3 |
| -3 Perceived Importance of Extended/Non-Traditional
Services to Users | II-5 |
| -4 Mean Proportion of Service Business Attributable
to Extended/Non-Traditional Service Offerings | II-6 |
| -5 Summary of Vendor Product Innovation and Roll-Out | II-7 |
| -6 Assessment of Vendor Performance Compared to
User Rating of Category Importance | II-8 |

III

- | | |
|--|-------|
| -1 Summary of Extended/Non-Traditional Services
Environment—User Perspective | III-2 |
| -2 Assimilation of Digital/Network Technologies
Into Traditionally Unrelated Industries | III-3 |
| -3 Summary of Cross-Industry Extended Services
Environment | III-4 |
| -4 Summary of Overall Extended/Non-Traditional
Services Environment | III-6 |

IV

- | | |
|---|------|
| -1 Percent Utilization of Equipment Type in User Sample | IV-2 |
| -2 Distribution of User Installed Base by Equipment Class | IV-3 |
| -3 Distribution of Mainframe Processors in the User Sample | IV-4 |
| -4 Distribution of Minicomputers in the User Sample | IV-5 |
| -5 Traditionally Defined Service Items—
Ranking by Mean Rating of Importance | IV-7 |



Exhibits (Continued)

IV

- | | | |
|----|--|-------|
| -6 | Number of Vendors Utilized by User Sample | IV-8 |
| -7 | Summary of Extended/Non-Traditional Services Received by Users | IV-10 |
| -8 | User Rating of Importance of Extended/Non-Traditional Service Categories | IV-11 |
| -9 | Perceived Importance of Extended/Non-Traditional Services to Users | IV-12 |

V

- | | | |
|----|--|-----|
| -1 | Vendor Perceptions of Current Customer/Field Services Market | V-2 |
| -2 | Breakdown of Vendor Segment by Proportion of Business Attributable to Extended/Non-Traditional Services | V-3 |
| -3 | Summary of Vendor Roll-Out in Extended/Non-Traditional Services | V-4 |
| -4 | Assessment of Vendor Performance Compared to User Rating of Extended/Non-Traditional Services Category Importance—Overall | V-6 |
| -5 | Assessment of Vendor Performance Compared to User Rating of Extended/Non-Traditional Services Category Importance—Large User | V-7 |
| -6 | Assessment of Vendor Performance Compared to User Rating of Extended/Non-Traditional Services Category Importance—Small User | V-8 |
| -7 | Summary of Field Engineer/Technical Personnel Education Practices | V-9 |

Appendix

A

- | | | |
|----|---|-------|
| -1 | Rudimentary New Services Roll-Out Assessment Worksheet | A-2-5 |
| -2 | Rudimentary Model For Assessment of Extended/Non-Traditional Services Roll-Out | A-6 |
| -3 | Rudimentary Model For Assessment of Extended/Non-Traditional Services Roll-Out: Reader Worksheet for Plotting Results | A-7 |





Introduction







Introduction

A

Purpose and Scope

Service organizations have developed beyond the traditional definitions of maintenance and repair activities to offer users a variety of new products. Some of these products are based upon the repackaging of existing services to provide a new look to the company's products; others constitute services and products leveraged from expertise in new technologies and areas of practice such as systems planning, network management and general consulting services.

Exhibit I-1 offers a loose model of the current service market behavior with regard to user demand and economic influences, and shows the types of maneuvers currently being designed and implemented by vendors to gain market advantage.

As the information systems marketplace moves toward—and displays more of the characteristics associated with—a solutions-driven market, there is tremendous pressure on the service vendor to differentiate the services provided and to leverage any and all expertise into salable products.

Exhibits I-2 and I-3 illustrate the kinds of services available in the marketplace and attempts to differentiate the repackaging of traditionally defined service options from products definable as newly created, extended or non-traditional products.

The restructuring of an existing service/product mix emphasizes the needs and requirements of the customer base and the concurrent requirement for the vendor to maintain profitability and market position. The competitive assumption is that expansion has slowed to zero, and market share must be taken from another vendor—and well defended.



EXHIBIT I-1

**Application/Technology-Driven
Service Market**Service Market Characteristics

- Traditional aspects plateaued/margins being squeezed
- Leverage relevant expertise to expanded service products
- Leveraging expertise into niche and cross-industry markets

Service Contract Issues

- Decisions focusing on bundling/un-bundling of services
- Roll-out of value-adding professional/ancillary services

Internal Operations

- Development/implementaion of real-time response capabilities
- Implementation of problem/resolution information pipeline
- Overall development of a proactive service infrastructure



EXHIBIT I-2

**Directions in Service/Product Innovation:
Repackaged/Restructured Services****Examples of Repackaged Services**

- Discounts
- Vertical market specialization
- Guaranteed response times
- Guaranteed uptimes
- Strategic user partnerships

The development of extended/non-traditional service products is based on an environment of expansion; the decision to proceed is based on the idea that there is less risk involved in the development and roll-out of a new type of service in an expansion market than in battling for market share in a relatively flat market with well-established competitors.

EXHIBIT I-3

**Directions in Service/Product Innovation:
Extended/Non-Traditional Services****Examples of Extended/Non-Traditional Services**

- Systems integration
- Disaster recovery
- General business consulting
- Network management
- Human resources
- Turnkey systems hardware and software (training)



This report is designed to investigate the types of non-traditional services being offered by service organizations. Is there a real trend toward redefining the customer service company; are ISOs expanding their product portfolios to remain competitive; and are service divisions within manufacturing companies beginning to develop broader functions?

More precisely, this report is designed to answer the following questions:

1. What new products and services are being implemented by computer and information services companies? How far from the traditional aspects of maintenance and repair are these new services?
2. In which extended service area(s) do customer service organizations have the greatest potential for success?
3. How responsive is the user community to the availability of non-traditional services from service organizations?

B

Methodology

This report is based upon structured telephone interviews with 30 users and 20 service vendors. Sampling was distributed across geographic and industry segments. The overall study methodology was designed to provide insight regarding how identified concepts and trends were being accepted and implemented within the computer and information services marketplace.

Exhibit I-4 provides the demographics of the user respondents. Although a modest majority are manufacturing companies, the sample does represent the more dominant vertical sectors used by INPUT in its industry-specific market definitions.

Exhibit I-5 provides the demographics of the vendor respondents. This sample generally represents the demographics of the customer service industry.



EXHIBIT I-4

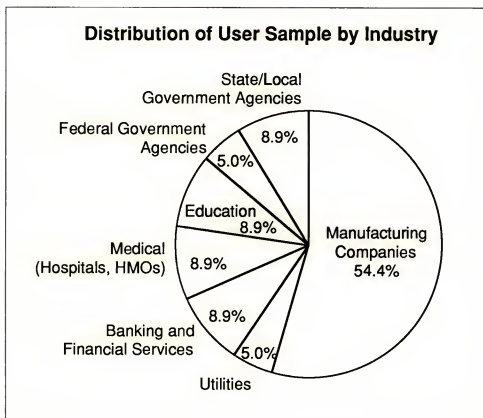
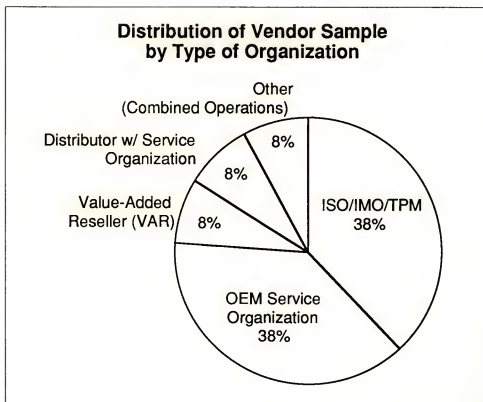


EXHIBIT I-5





C**Report Organization**

This report is organized as follows:

- Chapter II—Executive Overview—provides a brief summary of the report's findings and recommendations.
- Chapter III—Issue Background and Definition—provides a framework for contrasting traditional customer services offerings and newer innovative or extended services offerings.
- Chapter IV—User Requirements and Issues—presents the research findings regarding user interests and issues regarding extended services requirements.
- Chapter V—Vendor-Extended Services Offerings—Implementation Status—looks at the current state of vendor activity regarding innovative service offerings.
- Chapter VI presents conclusions and recommendations.

D**Related Reports**

Related 1991 reports include:

- *U.S. Customer Services Market, 1991-1996*
- *Single-Point-of-Contact Customer Service*
- *Impacts of New Support Technologies*





Executive Overview







Executive Overview

A

Scope and Definition

Service organizations are developing capabilities beyond the traditional definitions of maintenance and repair to offer users a variety of new products. These service products are based upon:

- The restructuring of an existing service/product mix. The competitive assumption is that expansion has slowed to zero and market share must be taken and, conversely, well defended. This strategy emphasizes the needs and requirements of the customer base and the concurrent requirement for the vendor to maintain profitability and market position.
- Services and products leveraged from expertise in new technologies and areas of practice such as systems planning, network management and general consulting services. This development of extended/non-traditional service products is based on an environment of expansion. The decision to proceed accepts that there is less risk involved in developing and offering a new type of service in an expansion market than in battling for market share in a relatively flat market with well-established competitors.

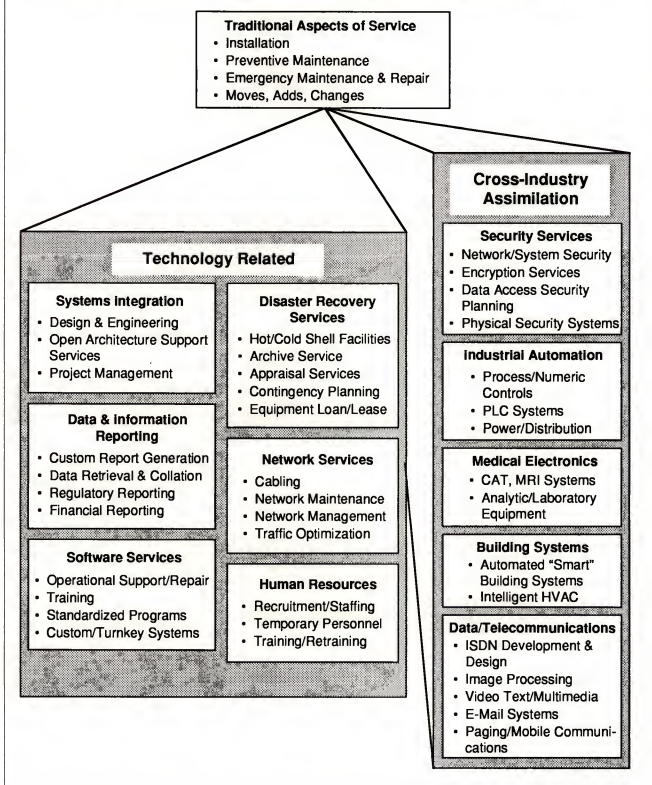
Exhibit II-1 illustrates the current, broadly defined extended/non-traditional services market.

This report is designed to investigate the types of extended/non-traditional services being offered by service organizations. Is there a real trend toward the redefinition of the customer service company; are ISOs expanding their product portfolios to remain competitive; and are service divisions within manufacturing companies beginning to develop broader functions?



EXHIBIT II-1

Status of Current Extended/Non-Traditional Services Market



The first part of the paper discusses the importance of the research and the objectives of the study. It then presents a literature review of the existing research on the topic. The second part of the paper describes the methodology used in the study, including the data collection and analysis techniques. The third part of the paper presents the results of the study, and the fourth part discusses the implications of the findings. The paper concludes with a summary of the main findings and a list of references.

The research was conducted in a laboratory setting, and the data was collected using a series of experiments. The results of the experiments were analyzed using statistical methods, and the findings were compared to the results of previous studies. The study found that there is a significant difference between the two groups, and that the results are consistent with the findings of previous research.

The implications of the findings are discussed in the fourth part of the paper. It is concluded that the results of the study have important implications for the field of research, and that further research is needed to explore the topic in more detail. The paper concludes with a summary of the main findings and a list of references.

More precisely, this report is designed to answer the following questions:

1. What new products and services are being implemented by computer and information services companies? How far from the traditional aspects of maintenance and repair are these new services?
2. In what extended service area(s) do customer service organizations have the greatest potential for success?
3. How responsive is the user community to the availability of non-traditional services from service organizations?

B

User Demographics

Exhibit II-2 shows the distribution of the user segment by equipment class in mean number of units and percentage breakdown.

EXHIBIT II-2

Distribution of User Installed Base by Equipment Class

Type/Class of Equipment	Overall		Small User		Large User	
	Mean Number of Units	Percent Distribution	Mean Number of Units	Percent Distribution	Mean Number of Units	Percent Distribution
Mainframe	2	0.3	1	0.7	2	2
Minicomputer	3	0.5	3	2	3	3
Workstation	163	31	10	7	265	29
PC	173	33	45	34	256	28
Terminal Network (Number of Nodes)	63	12	29	22	88	9
LAN (Number of Nodes)	69	13	13	10	101	11
Printers	68	13	28	21	112	12



The smaller user (see Exhibit IV-1 for segmentation methodology), though from a smaller absolute user population, has an installed base that uses roughly the same mix of processing technologies as the larger user.

The results of this study show that users attribute considerable value to products that, whether innovative and new or available as a commodity, contribute to system integrity and uptime. Traditionally defined services represent a basic and very important requirement for all classes of users, independent of the availability of extended/non-traditional services.

Virtually all (95.5%) of the users received some extended or non-traditional services from their associated service vendors.

An important consideration in the assessment of non-traditional services is illustrated in Exhibit II-3, which shows the overall mean importance rating of traditional and extended/non-traditional services and provides a ranking of these services for the overall, large-, and small-user segments.



EXHIBIT II-3

Perceived Importance of Extended/ Non-Traditional Services to Users

Type of Service	Mean Rating of Importance	End-User Ranking of Services by Level of Importance		
		Overall	Large User	Small User
<u>Traditionally Defined Service Feature</u>				
4-Hour Guaranteed Response	4.7	1	1	1
On-site Field Engineer	4.7	2	3	2
Uptime Guarantee	4.5	3	4	3
1-Hour Guaranteed Response	4.5	4	5	4
2-Hour Guaranteed Response	4.5	5	6	5
7-Day/24-Hour Service	4.2	6	8	6
Unlimited Service Calls	4.2	7	9	7
Loaner/Replacement Units	4.1	10	10	8
Preventive Maintenance	4.1	11	11	9
Telephone Support	3.9	13	13	11
Depot Service	3.6	14	15	14
Install/Moves/Adds	3.4	16	16	16
<u>Extended/Non-Traditional Services (By Category)</u>				
Network Services	4.1	8	7	15
Disaster Recovery	4.1	9	2	12
Security Services	4	12	12	10
Software Services	3.5	15	14	17
Planning & Design Services	3.2	17	18	13
Human Resources	2.5	18	17	18



C

Vendor Considerations

Vendors clearly indicate consensus that traditional services are perceived as having a low potential for continued growth. Vendor perceptions are that delivery of non-traditional services is key to market expansion.

Considering this strong emphasis on non-traditional services, it is notable that, on the average, 83% of business done by the service organization is still comprised of traditional services, as shown in Exhibit II-4.

EXHIBIT II-4

**Mean Proportion of Service Business
Attributable to Extended/Non-Traditional
Service Offerings**

Percent Business Attributable to Extended/Non-Traditional Services	Percent Distribution of Vendor Sample
4 - 10	50
11 - 20	25
21 - 25	8
26 - 40	17

The primary vendor activity in delivering extended services is in the network services and disaster recovery categories. Exhibit II-5 illustrates that roughly 65% of the vendor sample currently delivers some network and disaster recovery services, and that an additional 20%+ have indicated they are in the process of developing such services.



EXHIBIT II-5

Summary of Vendor Product Innovation and Roll-Out

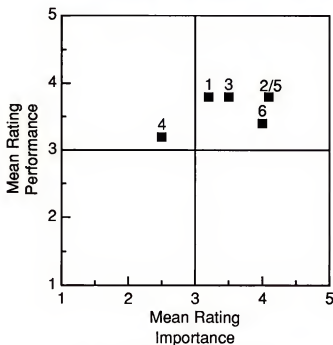
Expanded Service/ Product Category	Offers	Currently Adding	Planning to Add	Does Not Offer/ Consider
<u>Planning & Design Services</u>				
Design & Engineering	62	—	—	38
Site Planning	77	—	—	23
Purchase Consultation	69	—	—	31
<u>Network Services</u>				
Cabling	69	15	8	8
Configuration Management	69	15	8	8
Capacity Planning	69	15	15	—
Network Maintenance	62	15	15	8
Network Management	69	15	15	—
<u>Software & Services</u>				
Applications Training	85	—	—	15
Standard Software Products	77	—	—	23
Custom Software Development	53	—	8	46
Disaster Recovery Services	69	8	15	8
<u>Security Services</u>				
Network Security	38	8	—	54
Security Planning	38	—	8	54
<u>Human Resources</u>				
Recruitment/Staffing	15	—	—	85
Temporary Personnel	23	—	—	77

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	1477	1478	1479	1480	1481	1482	1483	1484	1485	1486	1487	1488	1489
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Vendor performance in delivering extended services to the user is generally good (overall mean rating of 3.8). Exhibit II-6 assesses the performance ratings for each extended services category against users' perceptions of each category's importance. The resulting graph gives a relative indication of how well vendors' services are being received in the user community.

EXHIBIT II-6

Assessment of Vendor Performance Compared to User Rating of Category Importance



Rating: 1 = No Importance/Low Performance
5 = Extreme Importance/Excellent Performance

Legend: 1 = Planning & Design
2 = Network Services
3 = Software Services
4 = Human Resources
5 = Disaster Recovery
6 = Security Services

D**Summary**

The market emphasis on the technologies and design of information movement and the shift away from the more fundamental nature of the underlying computing infrastructure have created many new opportunities and risks for the service vendor.

The response-sensitive nature of the traditionally defined service operation is well-suited as a foundation for development of new service products focused on maintaining system integrity.

Investments necessary when targeting network or software services in a maintenance and support role are in training, test/diagnostic equipment, and inventory maintenance. Within these specific categories, profitability still resides in short-term service visits, and the terms of the service contract.

The traditionally defined service operation is geared to work profitably in this response-sensitive type of business. INPUT's report *Impacts of New Support Technologies* investigates the large body of knowledge and technologies available to refine the service delivery infrastructure to better respond to user service demands.

The greatest threats are from competitors and industry segments that have established practices in project-oriented solutions or applications development.

It is INPUT's general recommendation that the vendor conduct a systematic audit of its core business components and current operational effectiveness prior to any serious consideration of a new service offering. It will be necessary to build a carefully considered feasibility determination, assess the role of traditional services, and establish an actionable and profitable balance between the delivery of hard and soft services.

- If there are gaps or inconsistencies in the operational aspects of the vendor delivery infrastructure, these should be investigated and resolved in an effort to produce the greatest profits from existing operations.
- Identify current users who may serve as a base for moving into extended/non-traditional service categories. Incorporate measures to retain current user loyalties, and that have potential for bundling new services with high value-in-use traditional services.







Issue Background and Definition







Issue Background and Definition

A

Background and Definition

The emergence of the third-party maintenance concept approximately ten years ago foreshadowed the role that product and delivery innovation would play in the computer and information services marketplace. Such innovation created an alternate market and permanently changed the dynamics and legalities of the computer and information services industry.

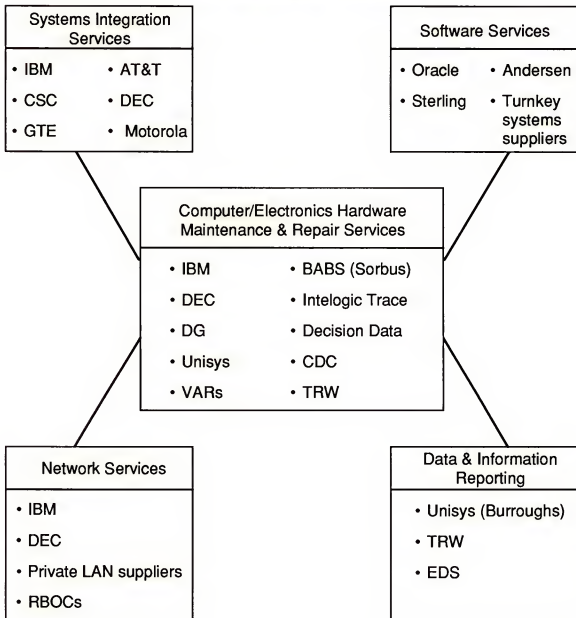
As microprocessor and digital technology continues to be configured in new industries and applications, traditionally defined computer customer service companies will find their expertise requested—and challenged—from new sources.

Technological advancement in the computer and information services industry and the increase in user dependence on this technology can be directly tied to many spin-off markets associated with non-traditional services. These are summarized in Exhibit III-1.



EXHIBIT III-1

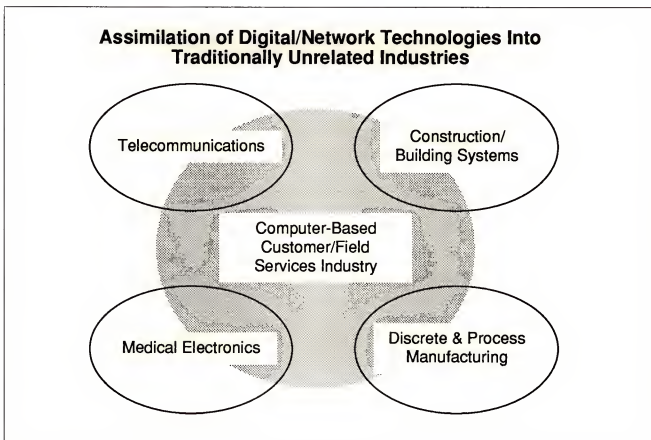
Summary of Extended/Non-Traditional Services Environment—User Perspective





Additionally, the assimilation of digital and network technologies into previously unassociated industries, illustrated by Exhibits III-2 and III-3, produces a conduit for cross-industry market penetration. The potential for entry is very high for companies that can develop or purchase the required expertise.

EXHIBIT III-2



1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial matters. The text outlines various methods for organizing and storing records, including digital databases and physical filing systems. It also mentions the need for regular audits and reviews to ensure the integrity of the data.

2. The second part of the document focuses on the role of communication in achieving organizational goals. It highlights the importance of clear and concise communication, both internally and externally. The text provides guidelines for effective communication, such as using appropriate language, listening actively, and providing feedback. It also discusses the benefits of open communication, including improved collaboration and decision-making.

3. The third part of the document addresses the issue of risk management. It defines risk as the potential for loss or damage and explains how to identify, assess, and mitigate risks. The text provides a framework for risk management, including the identification of risks, the assessment of their likelihood and impact, and the implementation of control measures. It also discusses the importance of monitoring and reviewing risks over time.

4. The fourth part of the document discusses the importance of training and development. It emphasizes that ongoing training and development are essential for maintaining a skilled and motivated workforce. The text outlines various training methods, including classroom instruction, on-the-job training, and self-paced learning. It also discusses the importance of setting learning objectives and evaluating the effectiveness of training programs.

5. The fifth part of the document discusses the importance of innovation and creativity. It emphasizes that innovation and creativity are essential for staying competitive in a rapidly changing market. The text provides guidelines for fostering innovation and creativity, such as encouraging open-mindedness, providing resources for experimentation, and rewarding creative ideas. It also discusses the importance of protecting intellectual property and managing innovation projects.

6. The sixth part of the document discusses the importance of sustainability. It defines sustainability as the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs. The text outlines various strategies for achieving sustainability, including reducing environmental impact, promoting social responsibility, and ensuring economic viability. It also discusses the importance of measuring and reporting on sustainability performance.

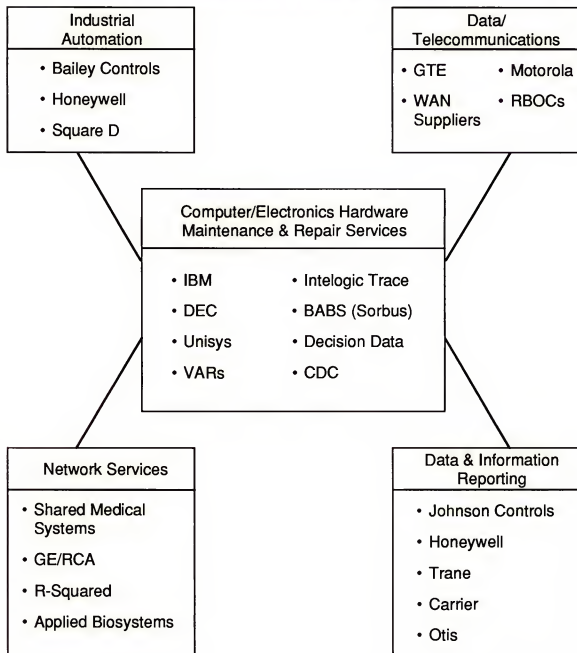
7. The seventh part of the document discusses the importance of ethics and integrity. It emphasizes that ethics and integrity are essential for building trust and credibility. The text provides guidelines for ethical behavior, such as being honest, fair, and respectful. It also discusses the importance of establishing a code of ethics and providing training on ethical issues.

8. The eighth part of the document discusses the importance of leadership. It emphasizes that effective leadership is essential for inspiring and motivating a team. The text provides guidelines for effective leadership, such as setting a vision, communicating effectively, and providing support. It also discusses the importance of developing leadership skills and qualities.

9. The ninth part of the document discusses the importance of teamwork and collaboration. It emphasizes that teamwork and collaboration are essential for achieving common goals. The text provides guidelines for effective teamwork and collaboration, such as setting clear roles and responsibilities, communicating effectively, and providing support. It also discusses the importance of building trust and rapport within a team.

10. The tenth part of the document discusses the importance of change management. It emphasizes that change management is essential for successfully implementing change. The text provides guidelines for effective change management, such as identifying the need for change, communicating the change, and providing support. It also discusses the importance of monitoring and evaluating the change process.

EXHIBIT III-3

Summary of Cross-Industry Extended Services Environment



This potential for cross-industry expansion will have an impact on competition in two ways:

- Competition within the traditionally defined computer and information services industry will focus on the customer services companies that have the specific applications expertise necessary to competently perform within a given market segment or niche.
- As telecommunications, building systems, manufacturing systems, and medical electronics, etc. become digitized and more intelligent, the crucial competitive question becomes whether:
 - Companies like the RBOCs, Johnson Controls, United Technologies, or Applied Biosystems, respectively, assimilate the systems and network expertise required to develop and service these more broadly defined systems, or
 - The customer services companies acquire the expertise necessary to completely understand the requirements of specialized systems and the associated industry and user population.

It is evident in the organizational shufflings of the customer services giants IBM and DEC that response to the fluid nature of this competitive environment is a complex issue. The assessment of risk should be a priority for any service organization attempting to develop products that differ from its core service offerings.

Competitive balances between hard and soft services will be key in successfully extracting profits from the total extended services marketplace, as illustrated in Exhibit III-4.

The remainder of this report investigates the need and requirements for extended/non-traditional services in the user community and the levels of corresponding delivery by service vendors.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial matters. The text outlines various methods for organizing and storing records, including digital databases and physical filing systems. It also mentions the need for regular audits and reviews to ensure the integrity of the data.

2. The second part of the document focuses on the role of communication in achieving organizational goals. It highlights the importance of clear and concise communication, both internally and externally. The text provides guidelines for effective communication, such as using appropriate language, listening actively, and providing feedback. It also discusses the benefits of open communication, including improved collaboration and decision-making.

3. The third part of the document addresses the issue of resource management. It discusses the importance of identifying and allocating resources effectively to support the organization's mission. The text outlines various strategies for resource management, including budgeting, prioritization, and delegation. It also mentions the need for regular monitoring and evaluation of resource usage to ensure optimal performance.

4. The fourth part of the document discusses the importance of continuous learning and improvement. It emphasizes that organizations must stay up-to-date with the latest trends and technologies to remain competitive. The text outlines various methods for learning, including training, conferences, and research. It also mentions the need for a culture of learning, where employees are encouraged to share knowledge and learn from each other.

5. The fifth part of the document discusses the importance of risk management. It outlines various strategies for identifying, assessing, and mitigating risks. The text emphasizes that risk management is an ongoing process that requires regular review and updates. It also mentions the need for a risk management framework that is tailored to the organization's specific needs and goals.

6. The sixth part of the document discusses the importance of stakeholder engagement. It outlines various methods for identifying and engaging stakeholders, including surveys, interviews, and focus groups. The text emphasizes that stakeholder engagement is essential for understanding the needs and expectations of different groups and for developing effective strategies to address them. It also mentions the need for regular communication and reporting to stakeholders.

7. The seventh part of the document discusses the importance of innovation and creativity. It outlines various methods for fostering innovation, including brainstorming, idea competitions, and cross-functional teams. The text emphasizes that innovation is essential for staying ahead of the competition and for developing new products and services. It also mentions the need for a culture of innovation, where employees are encouraged to think creatively and take risks.

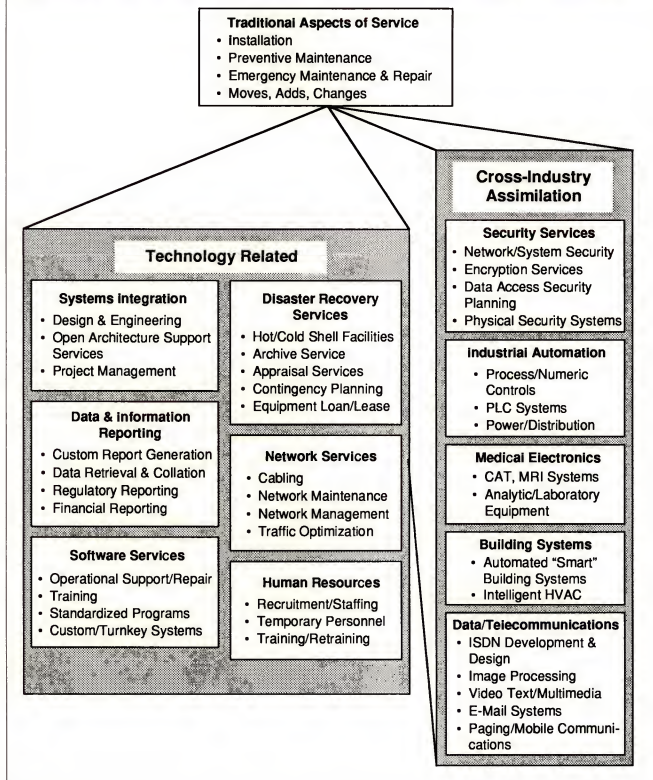
8. The eighth part of the document discusses the importance of sustainability. It outlines various strategies for reducing the organization's environmental impact, including energy conservation, waste reduction, and sustainable sourcing. The text emphasizes that sustainability is not just a moral imperative but also a business imperative, as it can lead to cost savings and improved brand reputation. It also mentions the need for regular monitoring and reporting of sustainability metrics.

9. The ninth part of the document discusses the importance of corporate social responsibility (CSR). It outlines various strategies for promoting social and environmental responsibility, including community outreach, employee volunteerism, and ethical sourcing. The text emphasizes that CSR is essential for building a positive reputation and for contributing to the well-being of society. It also mentions the need for regular communication and reporting on CSR activities.

10. The tenth part of the document discusses the importance of leadership. It outlines various strategies for effective leadership, including setting a vision, inspiring others, and making decisions. The text emphasizes that leadership is essential for driving change and achieving organizational goals. It also mentions the need for a culture of leadership, where employees are encouraged to take initiative and lead by example.

EXHIBIT III-4

Summary of Overall Extended/Non-Traditional Services Environment





IV

User Requirements and Issues



IV

User Requirements and Issues

A

User Demographics: Installed Base of Equipment

The aggregate user sample utilizes a diverse mixture of computer hardware and configurations. Exhibit IV-1 illustrates the common usage of multiple computer hardware classes within the user base.

Unplanned study results have allowed the segmentation of the user sample into small and large user categories (see footnote for segmentation methodology). Variations of greater than 15% in utilization for the small versus large user exist in the standalone workstation, PC, terminal network and LAN categories. However, the intermediate percentages (36% to 81%, the requirement for printers acknowledged as universal) seen in Exhibit IV-1 do not support any generalizations on how a user may configure its installed base.

the 1990s, the number of people in the UK who are aged 65 and over has increased by 1.5 million (1990–2000) and is projected to increase by a further 1.5 million by 2020 (Office for National Statistics 2001).

There is a growing awareness of the need to develop strategies to meet the needs of the ageing population. The Department of Health (2000) has identified the need to develop a new paradigm of care for the ageing population, one that is based on the concept of 'active ageing'. This paradigm is based on the idea that ageing is a process, not a state, and that the goal of care should be to promote the health and well-being of older people, rather than to simply manage their decline. The Department of Health (2000) has identified a number of key areas for action, including: promoting the health and well-being of older people; promoting the independence and participation of older people; and promoting the social inclusion of older people.

The Department of Health (2000) has also identified a number of key areas for research, including: the health and well-being of older people; the independence and participation of older people; and the social inclusion of older people. The Department of Health (2000) has also identified a number of key areas for practice, including: promoting the health and well-being of older people; promoting the independence and participation of older people; and promoting the social inclusion of older people.

The Department of Health (2000) has also identified a number of key areas for policy, including: promoting the health and well-being of older people; promoting the independence and participation of older people; and promoting the social inclusion of older people. The Department of Health (2000) has also identified a number of key areas for legislation, including: promoting the health and well-being of older people; promoting the independence and participation of older people; and promoting the social inclusion of older people.

The Department of Health (2000) has also identified a number of key areas for research, including: the health and well-being of older people; the independence and participation of older people; and the social inclusion of older people. The Department of Health (2000) has also identified a number of key areas for practice, including: promoting the health and well-being of older people; promoting the independence and participation of older people; and promoting the social inclusion of older people.

The Department of Health (2000) has also identified a number of key areas for policy, including: promoting the health and well-being of older people; promoting the independence and participation of older people; and promoting the social inclusion of older people. The Department of Health (2000) has also identified a number of key areas for legislation, including: promoting the health and well-being of older people; promoting the independence and participation of older people; and promoting the social inclusion of older people.

The Department of Health (2000) has also identified a number of key areas for research, including: the health and well-being of older people; the independence and participation of older people; and the social inclusion of older people. The Department of Health (2000) has also identified a number of key areas for practice, including: promoting the health and well-being of older people; promoting the independence and participation of older people; and promoting the social inclusion of older people.

EXHIBIT IV-1

**Percent Utilization of Equipment
Type in User Sample**

Type/Class of Equipment	Percent Usage		
	Overall	Small	Large
Mainframe	68	63	72
Minicomputer	50	45	54
Workstation	45	36	54
PC	68	54	81
Terminal Network	54	45	63
LAN	63	45	81
Printer	100	100	100

Small users are defined as respondents having 100 or less of each type of station; the largest possible user population for the small-user segment is therefore 400.

(SMALL USER = #workstations \leq 100; #PCs \leq 100; #Network Nodes (Terminal Network or LAN workstations) \leq 100)

Large users were defined as having more than 100 units in any of these categories of stations; the smallest possible large user therefore may have 104 user stations.

(LARGE USER = #workstations >100 or #PCs >100 or #Network Nodes >100)

IMPORTANT: Theoretically this definition is flawed and would allow an overlap of almost 300 user stations. However, no respondents fell into this overlap segment—that is, no large user had less than 400 separable user stations regardless of the distribution between the unit categories and all had at least one category with over 100 units, which allows an exclusive segmentation and an opportunity to assess basic differences in the characteristics of these segments.



Exhibit IV-2 builds a model of the user segments as defined by the distribution of each equipment class in mean number of units and percentage breakdown.

EXHIBIT IV-2

Distribution of User Installed Base by Equipment Class						
Type/Class of Equipment	Overall		Small User		Large User	
	Mean Number of Units	Percent Distribution	Mean Number of Units	Percent Distribution	Mean Number of Units	Percent Distribution
Mainframe	2	0.3	1	0.7	2	2
Minicomputer	3	0.5	3	2	3	3
Workstation	163	31	10	7	265	29
PC	173	33	45	34	256	28
Terminal Network (Number of Nodes)	63	12	29	22	88	9
LAN (Number of Nodes)	69	13	13	10	101	11
Printers	68	13	28	21	112	12

The installed base represented suggests a distributed overall computing style. For the overall user sample, just under two-thirds (64%) of the equipment units are classified as standalone workstation and PCs.

In the small-user segment, the results indicate that roughly half of the operating workstations and PCs are on either a terminal network or a LAN. This coincides with the mounting importance of delivery of network-related maintenance and management to the user regarding extended/non-traditional services, seen in section C of this chapter.

The large-user segment indicates that less than one-quarter of the operating workstations and PCs are configured into a terminal network or LAN. Large users do comprise a much greater absolute volume in all these categories of user stations.

Size and utilization characteristics of terminal networks and LANs offer no insights to preference, but the dual existence may suggest that the perceived and/or real differences in processing characteristics of each configuration has exclusive benefits to applications users.

The relative similarity in mean number of mainframe and minicomputer units being used in the small- and large-user segments is noteworthy, as it provides evidence that small users utilize systems capable of high processing volumes. This raises the issue for service vendors of how to segment and classify their own user base: is service demand a function of MIPS characteristics and transaction volumes or more a function of the real number of users dependent upon the system?

Exhibit IV-3 shows the distribution of mainframe processors within the user sample and provides evidence that, reasonably, the large-user segment incorporates the greatest number of mainframes. However, there is no indication that mainframe configurations are less likely in small-user systems. Exhibit IV-1 noted that the percent utilization of mainframes for both segments is fairly close (within 10%).

EXHIBIT IV-3

**Distribution of Mainframe Processors
in the User Sample**

Number Separable Mainframe Processors	Percent Distribution		
	Overall	Small User	Large User
1	71	83	63
2	21	17	25
3	7	-	12

The distribution of minicomputers across the segments shows that small users actively use this processing option. Exhibit IV-4 suggests no significant variation in usage patterns between small and large users.



EXHIBIT IV-4

**Distribution of Minicomputers
in the User Sample**

Number Separable Minicomputers	Percent Distribution		
	Overall	Small User	Large User
1	36	60	17
2	27	-	50
3-5	18	20	17
5-10	18	20	17

These findings provide evidence for a basic conclusion: the smaller user, though from a smaller absolute user population, has an installed base that uses roughly the same mix of processing technologies as the larger user.

This suggests that the large user will produce a higher service demand by the sheer number of users, not necessarily by any inherent difference in the types of services required.

B**User Service Needs and Requirements—Traditionally Defined Services**

Citing the general advancement of product and networking technologies, users were asked to rate if, compared to two years ago, there was an overall increase in their sensitivity to service and support issues. Responding on a 1-5 scale—where 1 indicated a low or reduced sensitivity and 5 indicated a high or increased sensitivity—the user sample rated a mean of 3.7

This sensitivity rating is not significantly high, but may reflect a general recognition by the corporate user community of the service and support role in maintaining application productivity and, consequently, dependent personnel productivity.

Associated verbatim responses regarding the effects of advanced product and network technology included the following comments:

- There is a requirement to competently increase the capacity of networks without bottlenecks, without an increase in net downtime.
- Improvements, and standards, in connectivity are needed—a requirement for a dominant open standard
- Level of FE expertise lags behind the equipment technology

Comments were consistently made associating the basic service requirements of responsive service, reliable repairs, and high levels of equipment uptime to the newer technologies. These considerations recur, independent of the levels of installed base technology, as highly important to the user community.

The current portfolio of traditional services provided to the user details a variety of service items in addition to the provision of parts and labor. The most important service items deal with the response capabilities and overall availability of the field representative and the service organization in general.

- As shown in Exhibit IV-5, five of the top eight services features deal with response-related aspects of the service relationship.
- No service feature received an average rating of importance of less than 3.4 on a scale of 1 to 5 (with 5 being extremely important).
- Nine of the 12 features listed received an average rating of 4 (very important) or greater.

When asked if they receive these individual service items from vendors as part of their service agreement(s) the respondents indicated that there are specific items that are not consistently delivered in the industry. The ability to provide the user with an uptime guarantee for its installed base, the availability of a full-time, on-site field engineer, and a guaranteed one-hour response time rank in the top of this category.

The emphasis of traditionally defined services, through the itemized service features listed, is upon maintaining a high level of day-to-day performance for users' installed base of equipment. The results of this study show that users attach considerable value to those products, whether innovative and new or available as a commodity, that contribute to system integrity and uptime.



EXHIBIT IV-5

**Traditionally Defined Service Items
Ranking by Mean Rating of Importance**

Service Features	Mean Rating of Importance
4-Hour Guaranteed Response	4.7
On-site Field Engineer	4.7
Uptime Guarantee	4.5
1-Hour Guaranteed Response	4.5
2-Hour Guaranteed Response	4.5
7-Day/24-Hour Service	4.2
Unlimited Service Calls	4.2
Loaner/Replacement Units	4.1
Preventive Maintenance	4.1
Telephone Support	3.9
Depot Service	3.6
Install/Moves/Adds	3.4

Rating: 1 = Not Important, 5 = Extremely Important

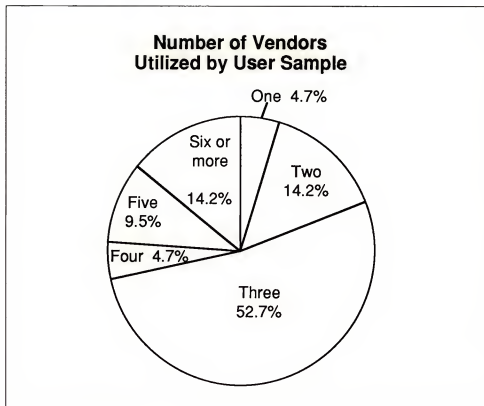
C**User Participation In and Perceptions of Extended/Non-Traditional Service Offerings**

Virtually all (95.5%) of the users had received some extended or non-traditional services from their associated service vendors.



The user sample indicates that each utilizes an average of three service suppliers to support the installed base of equipment and overall systems (see Exhibit IV-6). Each user recognizes a primary vendor, responsible for the majority of components in the user's system, and typically solicits additional vendors for specific product technologies and service roles. For users contracting with 1-5 vendors, there was no significant correlation between the size of the user and the number of vendors that user utilized for service coverage. The largest users in the sample (1,000+ users) indicated using between 5-12 vendors to establish adequate coverage for their installed base of equipment.

EXHIBIT IV-6



Companies identified often as primary vendors by the user sample include the following (IBM receiving the most mentions as users' primary vendor):

- IBM
- Data General
- DEC
- HP
- Unisys

Other major customer services companies identified within the user sample as being considered users' primary vendor include:

- TRW
- Bull
- Tandem
- Bell Atlantic Business Systems (Sorbis)
- Cray

Bell Atlantic was the only ISO mentioned in the sample as a primary vendor. Other traditionally defined ISOs, LAN suppliers, and office automation companies were typical in the vendor mix.

Regarding the delivery of extended/non-traditional services, the majority of users had received planning and design services from their associated vendors. Exhibit IV-7 suggests that services associated with the initial stages of the purchase cycle—design and engineering, site planning, and purchase consultation—are most common within the user segment.

Reception of other non-traditional services is consistent, with roughly 20%-30% of users receiving these services. Human resources consistently showed low levels of activity throughout this study, which seems to indicate that this will remain a specialized area of practice.

Exhibit IV-7 shows that large users receive the highest levels of network and software services and small users require the highest levels of planning and design services. Overall, the smaller users appear to more readily accept and utilize the service organization as a source for initial systems consultation.

The large user utilizes the service organization's expertise in maintaining overall systems and systems operation integrity.



EXHIBIT IV-7

Summary of Extended/Non-Traditional Services Received by Users

Expanded Service/ Product Category	Percent Total Receiving Item	Percent Small End User	Percent Large End User
<u>Planning & Design Services</u>			
Design & Engineering	50	60	40
Site Planning	70	80	60
Purchase Consultation	65	50	80
<u>Network Services</u>			
Cabling	45	30	60
Configuration Management	N/A*	—	—
Capacity Planning	N/A*	—	—
Network Maintenance	40	30	50
Network Management	30	30	40
<u>Software & Services</u>			
Applications Training	35	30	40
Standard Software Products	40	30	50
Custom Software Development	35	20	50
<u>Human Resources</u>			
Recruitment/Staffing	10	20	—
Temporary Personnel	5	10	—
<u>Disaster Recovery Services</u>	45	50	40
<u>Security Services</u>			
Network Security	15	20	10
Security Planning	20	30	10

*Data not available from user segment.

Note: See Exhibit IV-1 for segmentation methodology.



When asked to rate the level of importance of the major categories of non-traditional services—utilizing a scale of 1-5 where 1 indicates the item is of no importance and 5 indicates the item is of extreme importance—users responded as illustrated in Exhibit IV-8.

EXHIBIT IV-8

**User Rating of Importance of
Extended/Non-Traditional Service Categories**

Major Service Category	Mean Rating of Importance
Network Services	4.1
Disaster Recovery	4.1
Security Services	4.0
Software & Services	3.5
Planning & Design Services	3.2
Human Resources	3.2

The relatively high rating for security services amplifies the importance of network access control issues. The recent incidents involving unauthorized access into UNIX nets and the DEC corporate net stress the importance of these issues in the current and future marketplace.

An important consideration in the assessment of non-traditional services is illustrated in Exhibit IV-9, which identifies the overall mean rating of importance of traditional and extended/non-traditional services and provides a ranking of these services for the overall, large- and small-user segments.

Compared to users' assessment of traditional services, the non-traditional service categories scored in the intermediate range, with network and disaster recovery services scoring consistently high in level of importance.

Network services and disaster recovery are the only extended/non-traditional categories to be ranked within the top ten service features by the overall and large-user segment. It is important to note that the large-user segment ranks disaster recovery second only to four-hour guaranteed response time.



EXHIBIT IV-9

Perceived Importance of Extended/ Non-Traditional Services to Users

Type of Service	Mean Rating of Importance	End-User Ranking of Services by Level of Importance		
		Overall	Large User	Small User
<u>Traditionally Defined Service Feature</u>				
4-Hour Guaranteed Response	4.7	1	1	1
On-site Field Engineer	4.7	2	3	2
Uptime Guarantee	4.5	3	4	3
1-Hour Guaranteed Response	4.5	4	5	4
2-Hour Guaranteed Response	4.5	5	6	5
7-Day/24-Hour Service	4.2	6	8	6
Unlimited Service Calls	4.2	7	9	7
Loaner/Replacement Units	4.1	10	10	8
Preventive Maintenance	4.1	11	11	9
Telephone Support	3.9	13	13	11
Depot Service	3.6	14	15	14
Install/Moves/Adds	3.4	16	16	16
<u>Extended/Non-Traditional Services (By Category)</u>				
Network Services	4.1	8	7	15
Disaster Recovery	4.1	9	2	12
Security Services	4.0	12	12	10
Software Services	3.5	15	14	17
Planning & Design Services	3.2	17	18	13
Human Resources	2.5	18	17	18



The small-user segment displays relative apathy toward the provision of extended/non-traditional services, with no associated category ranking significantly high compared to traditionally defined services.





Vendor-Extended Service Offerings—Implementation Status





Vendor-Extended Service Offerings—Implementation Status

A

Implementation of Extended/Non-Traditional Services

When vendors were asked to indicate their level of agreement with four different market growth scenarios, as described in Exhibit V-1, the responses clearly showed consensus by the vendors that traditional services are perceived as having little potential for continued growth.

Vendor perceptions are that the delivery of non-traditional services is key to market expansion, the attributable scenario receiving a significantly high level of agreement within the vendor sample (mean rating of 3.7).

The close scores given to the scenarios outlining innovative marketing and niche mechanisms indicate strong preferences by the vendors. However, the variance in the scores indicates that the vendor community is less certain of the growth potential in these models.



EXHIBIT V-1

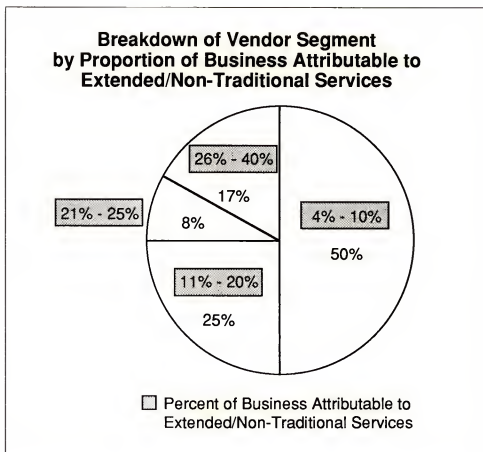
**Vendor Perceptions of Current
Customer/Field Services Market**

Market Growth Statement	Mean Rating of Agreement
Significant growth will develop through the delivery of allied, non-traditional services by customer service organizations.	3.7
Significant growth in traditional customer service markets will be seen through innovative marketing and/or the restructuring of service delivery mechanisms.	3.5
Overall market growth cannot be assessed in the aggregate. Technology and vigorous end-user demands have brought the competition to the segment and niche level. Significant growth will be seen in specific areas not in the overall market.	3.4
There will be significant growth in the traditional services (10%+ annually).	2.4

Considering the emphasis suggested in Exhibit V-1, it is notable that, on the average, only 17% of business done by the service organization is comprised of non-traditional services, as shown in Exhibit V-2.



EXHIBIT V-2



There was no consistent trend indicating that manufacturer-based service organizations or ISOs were more or less likely to participate in extended services.

Primary vendor activity in delivering extended services exists in the network services and disaster recovery categories. Exhibit V-3 shows that roughly 65% of the vendor sample currently delivers network and disaster recovery services, and that another 20%+ have indicated they are in the process of developing such services. Vendors not currently offering planning and design services and/or software services do not indicate any plans to begin offering such services.

The first part of the paper discusses the importance of understanding the underlying mechanisms of the observed phenomena. This is followed by a detailed analysis of the data, which reveals several key findings. The results indicate that the proposed model is highly effective in capturing the essential features of the system under study. Furthermore, the analysis shows that the system exhibits a high degree of robustness and stability, even in the presence of significant perturbations. These findings are supported by a series of numerical simulations and theoretical arguments. The paper concludes by highlighting the potential applications of the proposed model and suggesting directions for future research.

EXHIBIT V-3

**Summary of Vendor Roll-Out in
Extended/Non-Traditional Services**

Expanded Service/ Product Category	Offers	Currently Adding	Planning to Add	Does Not Offer/ Consider
<u>Planning & Design Services</u>				
Design & Engineering	62	—	—	38
Site Planning	77	—	—	23
Purchase Consultation	69	—	—	31
<u>Network Services</u>				
Cabling	69	15	8	8
Configuration Management	69	15	8	8
Capacity Planning	69	15	15	—
Network Maintenance	62	15	15	8
Network Management	69	15	15	—
<u>Software & Services</u>				
Applications Training	85	—	—	15
Standard Software Products	77	—	—	23
Custom Software Development	53	—	8	46
Disaster Recovery Services	69	8	15	8
<u>Security Services</u>				
Network Security	38	8	—	54
Security Planning	38	—	8	54
<u>Human Resources</u>				
Recruitment/Staffing	15	—	—	85
Temporary Personnel	23	—	—	77



Applications training and the delivery of standardized software are currently major areas of focus for the vendor community. One hundred percent of the manufacturer-based service organizations in the vendor sample indicated they do provide these software services as a part of their portfolios.

The weakest participation is in developing human resources options; as stated earlier, this type of service appears to remain a cloistered area of practice for specialized companies.

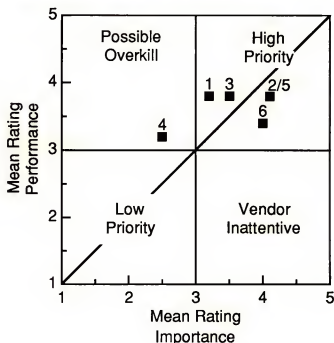
B

Vendor Performance in Delivering Extended Services

Vendor performance in delivering extended services to the user is generally good (overall mean rating of 3.8). Exhibit V-4 assesses the performance ratings for each extended services category against users' perception of each category's importance. The resulting graph presents a relative indication of how well vendors' services are being received in the user community.



EXHIBIT V-4

Assessment of Vendor Performance Compared to User Rating of Extended/Non-Traditional Services Category Importance—Overall

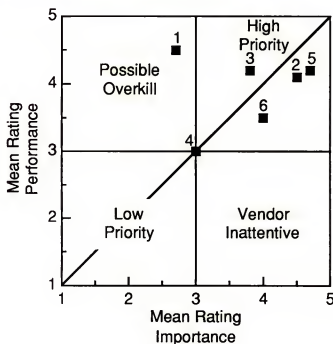
Legend: 1 = Planning & Design
2 = Network Services
3 = Software Services
4 = Human Resources
5 = Disaster Recovery
6 = Security Services

Although performance scores are generally positive overall, network and disaster recovery services display a slight performance gap regarding users' perception of their importance. Human resources shows recurring low scores throughout this study and can effectively be discounted as a viable channel for serious development.



EXHIBIT V-5

Assessment of Vendor Performance Compared to User Rating of Extended/Non-Traditional Services Category Importance—Large User



- Legend:
- 1 = Planning & Design
 - 2 = Network Services
 - 3 = Software Services
 - 4 = Human Resources
 - 5 = Disaster Recovery
 - 6 = Security Services

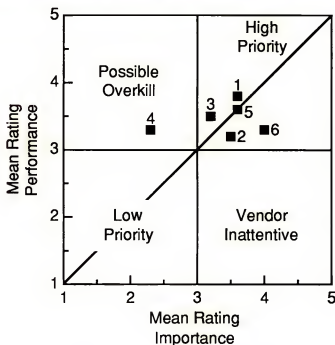
The large-user segment, referring to Exhibit V-5, appears to receive a higher general level of performance from the extended services vendor than does the small-user segment, shown in Exhibit V-6.

Results indicate, however, that planning and design services may be overdone by the vendors. A reorientation is suggested for vendors wanting to mine the large-user segment more thoroughly.



EXHIBIT V-6

Assessment of Vendor Performance Compared to User Rating of Extended/Non-Traditional Services Category Importance—Small User



Legend: 1 = Planning & Design
 2 = Network Services
 3 = Software Services
 4 = Human Resources
 5 = Disaster Recovery
 6 = Security Services

Extended/non-traditional services are considered less important overall in the small user segment. Performance levels delivered by the associated vendors appear to complement the small-user segment's priorities, but are generally lower than the performance scores recorded in the large-user segment for these services.

C

Vendor Initiatives

A necessary initiative taken by the vendor community is the continuous training of the field service, technical support, and operational personnel. Exhibit V-7 summarizes the efforts of the vendor sample across five educational areas.

The first part of the paper discusses the importance of understanding the underlying mechanisms of the observed phenomena. It is argued that a comprehensive understanding of the system requires a detailed analysis of the various factors that influence its behavior. This involves identifying the key variables and their interactions, as well as the underlying processes that govern the system's dynamics.

The second part of the paper presents a theoretical framework for analyzing the system. This framework is based on the principles of thermodynamics and statistical mechanics, which provide a rigorous foundation for understanding the system's behavior. The framework is then applied to the specific case of the system under study, leading to a series of predictions that can be tested experimentally.

The third part of the paper describes the experimental setup and the results of the measurements. The experimental setup is designed to measure the system's response to various external perturbations, and the results show that the system exhibits a rich and complex behavior. The experimental data are then compared with the theoretical predictions, and it is found that the theory provides a good description of the observed phenomena.

The final part of the paper discusses the implications of the results and the future directions of the research. It is concluded that the study has provided a valuable insight into the underlying mechanisms of the system, and that further research is needed to explore the system's behavior in more detail. The future directions of the research include the development of a more comprehensive theoretical framework and the design of more sophisticated experiments.

EXHIBIT V-7

**Summary of Field Engineer/Technical Personnel
Education Practices**

Area of Educational Focus	Percent Requiring	Mean Days/Year
Software Maintenance/Support	92	10
Maintenance & Repair of New Technologies	100	12
Customer Relations/ Communications Skills	83	5
Sales (Cross-Sales) Development	33	3
Competitive Intelligence Gathering	25	9

Further breakdown of each educational area is not available, but the existence of such programs highlights the evolving requirements placed upon the customer/field service engineer as the resource for delivering solutions to the user.

The development of new services will require the customer/field personnel to add new responsibilities to their repertoire, as well as new tooling. The vendor evaluating the roll-out of extended/non-traditional services will need to determine and orchestrate a new mixture of skill levels and types. The division of labor in the service organization may evolve as more fluid and the required management methodology more sensitive to a matrix-style or team approach.





Conclusions and Recommendations





Conclusions and Recommendations

A

Summary

The results of this study support the following summary findings:

- Currently, 85% of the services delivered by vendors are defined as traditional services.
 - This tempers a strong consensus by the vendor sample that the traditional service market is not an area of significant growth. At present, even witnessing flat growth, this market cannot be discounted in strategic and tactical market planning.
 - The growth of extended/non-traditional services is difficult to define as a single market. However, acknowledged segments—systems integration, network management, disaster recovery, etc.—are anticipated to grow significantly over the next 2-5 years. The point at which extended services may comprise the majority of a service vendor's business is uncertain.
- The user community consistently rates service features that contribute to maintaining day-to-day systems and applications integrity as extremely important.
 - The service vendor must competently deliver service components that are response sensitive. This basic concept must be maintained by the vendor in any roll-out of more project-oriented or one-time service features.
 - The traditionally defined service vendor may leverage its existing service delivery infrastructure as the foundation for entering into response-oriented extended/non-traditional services—such as network maintenance, disaster recovery, and software support—and building from this extended service base. This corroborates information on service vendor activities, as seen in Chapter V.



- The small- and large-user segments utilize similar information processing technologies and configurations.
 - The small user has a need and requirement for the same service mix as does the large user. The vendor that structures premium services to only the large or highly visible user may be missing an opportunity.
 - It may be more appropriate for the vendor to assess a given user's configuration on the basis of user density rather than on processing volume.

B

Recommendations

Within the bounds of these findings, it may be stated that there are four basic mechanisms that have led to the development of extended/non-traditional services in the customer/field service vendor community:

- The slow/flat growth of traditionally defined services
- The explosive use of networks, and the subsequent demand for service and support
- Software/application considerations taking priority in the equipment/system purchase decision
- The overall user requirement to make diverse configurations work!

The market emphasis on the technologies and design of information movement and the shift away from the more fundamental nature of the underlying computing infrastructure have created many new opportunities and risks for service vendors.

The response-sensitive nature of the traditionally defined service operation is well suited as a foundation for developing new service products focused on maintaining system integrity. Investments necessary when targeting network or software services in a maintenance and support role are in training, test/diagnostic equipment, and inventory maintenance. Within these specific categories, the economics of the business would still rest in the short-term service visit, and the characteristics of the service contract. The traditionally defined service operation is geared to work profitably in this type of business. INPUT's report *The Impact of New Support Technologies* investigates the large body of knowledge and technologies available to refine the service delivery infrastructure to better respond to this type of business.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial matters. The text outlines various methods for organizing and storing data, including digital databases and physical filing systems.

2. The second section focuses on the role of technology in modern record management. It highlights how software solutions can streamline processes, reduce errors, and improve access to information. Examples of specific tools and platforms are provided, along with a discussion on the security measures necessary to protect sensitive data from unauthorized access or loss.

3. The third part of the document addresses the challenges associated with long-term data retention and archiving. It explores the legal requirements for preserving records and the technical considerations for ensuring the integrity and readability of data over time. Strategies for periodic audits and updates are also discussed.

4. Finally, the document concludes by emphasizing the ongoing nature of record management. It encourages a proactive approach to maintaining and improving record-keeping practices, adapting to new technologies and regulatory changes as they arise. The importance of training and education for staff involved in these processes is also noted.

The greatest threats are from competitors and industry segments that have established practices in project-oriented solutions or applications development.

INPUT offers Appendix A to assist in the assessment of new services. This appendix shows the analysis necessary to form a well-considered feasibility determination.

It is INPUT's general recommendation that the vendor conduct a systematic audit of its core business components and current operational effectiveness prior to any serious consideration of new services roll-out.

- If there are gaps or inconsistencies in the operational aspects of the vendor delivery infrastructure, these should be investigated and resolved in an effort to produce the greatest profits from existing operations.
- Identify current users who may serve as a base for moving into extended/non-traditional service categories. Incorporate measures to retain current user loyalties, and that have potential for bundling new services with high value-in-use traditional services.

To use the methodology presented in Exhibit A-1, the reader should indicate the appropriate score for each of the identified service category or business strength characteristics. At the completion of each section it will be necessary to calculate the mean score for that section. This will provide the reader with a single mean score for each section (service category characteristic and business strength characteristic, respectively). These two scores can then be plotted on the X/Y matrix presented in Exhibit A-2, service category characteristics being plotted on the Y axis.

This exercise establishes a rudimentary comparison of the relative roll-out potential for selected service categories. This comparison can suggest movements or tactics that may be necessary for vendors to pursue in order to successfully begin offering a given service.





Appendixes





Services Roll-Out Checklist



EXHIBIT A-1

Rudimentary New Services Roll-Out Assessment Worksheet

Service Category Characteristics	Rating	Reader Score
<u>Segment Size—Total</u>		
Very Small	1	
Small	2	
Medium	3	_____
Large	4	
Very Large	5	
<u>Segment Size—Reasonable Potential</u>		
(Added Gross Revenue/Year)		
Very Small	1	
Small	2	_____
Medium	3	
Large	4	
Very Large	5	
<u>Segment Growth Rate—Total</u>		
Declining	1	
Stable	2	_____
Slow Growth	3	
Medium Growth	4	
Fast Growth	5	
<u>Competitive Intensity</u>		
Superior Competition	1	
Strong/Active Competition	2	_____
Moderate Competition	3	
Slight/Some Competition	4	
No Competition	5	
<u>Required Penetration/Expansion Investment</u>		
Very High	1	
High	2	_____
Moderate	3	
Low	4	
None	5	
<u>Frequency of Purchase</u>		
Infrequent User	1	
	2	_____
Moderate User	3	
	4	
Heavy User	5	

the 1990s, the number of people in the UK who are aged 65 and over has increased from 10.5 million to 12.5 million, and the number of people aged 75 and over has increased from 4.5 million to 6.5 million (Office of National Statistics 2000).

There is a growing awareness of the need to address the needs of older people in the community. The Department of Health (1999) has published a strategy for older people, which sets out a vision for the future of older people's health and care. The strategy is based on the following principles: older people should be able to live independently, safely and comfortably; older people should be able to participate in the community; and older people should be able to access the services they need.

The strategy also sets out a number of objectives for the future of older people's health and care. These include: to improve the health and well-being of older people; to reduce the inequalities in health and care between different groups of older people; to ensure that older people have access to the services they need; and to ensure that older people are able to live independently, safely and comfortably.

The strategy is a key document for the future of older people's health and care in the UK. It sets out a vision for the future of older people's health and care, and sets out a number of objectives for the future of older people's health and care. The strategy is a key document for the future of older people's health and care in the UK.

The strategy is a key document for the future of older people's health and care in the UK. It sets out a vision for the future of older people's health and care, and sets out a number of objectives for the future of older people's health and care. The strategy is a key document for the future of older people's health and care in the UK.

The strategy is a key document for the future of older people's health and care in the UK. It sets out a vision for the future of older people's health and care, and sets out a number of objectives for the future of older people's health and care. The strategy is a key document for the future of older people's health and care in the UK.

The strategy is a key document for the future of older people's health and care in the UK. It sets out a vision for the future of older people's health and care, and sets out a number of objectives for the future of older people's health and care. The strategy is a key document for the future of older people's health and care in the UK.

The strategy is a key document for the future of older people's health and care in the UK. It sets out a vision for the future of older people's health and care, and sets out a number of objectives for the future of older people's health and care. The strategy is a key document for the future of older people's health and care in the UK.

EXHIBIT A-1 (CONT.)

Rudimentary New Services Roll-Out Assessment Worksheet

Service Category Characteristics	Rating	Reader Score
<u>Probable Margin on Purchase</u>		
Very Low	1	_____
Low	2	
Moderate (Acceptable)	3	
High	4	
Very High	5	
<u>Substitutes/Dependency</u>		
Many Active Substitutes	1	_____
Few Active Substitutes	2	
Few Substitutes	3	
Sub-Standard Substitutes	4	
No Substitutes	5	
Mean Score for Category/Segment Section		_____

EXHIBIT A-1 (CONT.)

Rudimentary New Services Roll-Out Assessment Worksheet

Business Strength Characteristics	Rating	Reader Score
<u>Relative Share in Market</u>		
Under 10%	1	_____
10 - 25%	2	
26 - 50%	3	
51 - 75%	4	
Over 75%	5	
<u>Share Growth</u>		
Declining	1	_____
	2	
Stable	3	
	4	
Growing (Or >90%)	5	
<u>Price Competitiveness—Operating Cost</u>		
Product/Service Cost High	1	_____
	2	
Product/Service Cost Competitive	3	
	4	
Product/Service Cost Low	5	
<u>Product/Service Quality—Performance</u>		
Below That of Competition	1	_____
	2	
Same as Competition	3	
	4	
Better Than Competition	5	
<u>Knowledge of Customer's/Market</u>		
Not Knowledgeable/Less than Competition	1	_____
Not Very/Incomplete Information	2	
Same Information as Competition	3	
More Information than Competition	4	
Very Knowledgeable/Better than Competition	5	
<u>Brand/Vendor Recognition</u>		
(Virtually) Unknown	1	_____
Not as Well Known as Competition	2	
As Well Known as Competition	3	
Better Known than Competition	4	
Preferred to Competition/No Competition	5	



EXHIBIT A-1 (CONT.)

Rudimentary New Services Roll-Out Assessment Worksheet

Business Strength Characteristics	Rating	Reader Score
<u>Delivery/Distribution Infrastructure</u>		
No Delivery Infrastructure Exists	1	_____
Infrastructure Exists, Favors Competition	2	
Infrastructure Exists and Neutral	3	
Infrastructure Exists, Favors Vendor	4	
Superior/Captive Infrastructure Exists	5	
<u>Sales Effectiveness</u>		
(Ability to Gain Share)		
Not at All	1	_____
Not Very Effective	2	
Somewhat Effective	3	
Effective	4	
Very Effective	5	
<u>Fit With Current (Core) Business/Services</u>		
None (Dissimilar)	1	_____
Poor	2	
Fair	3	
Good	4	
Very Good (Complementary)	5	
<u>Unique Marketing Advantage</u>		
No/Strong Disadvantage	1	_____
Minor Disadvantage	2	
Neutral	3	
Minor Advantage	4	
Yes/Major Advantage	5	
Mean Score for Business Strength Section		_____



EXHIBIT A-2

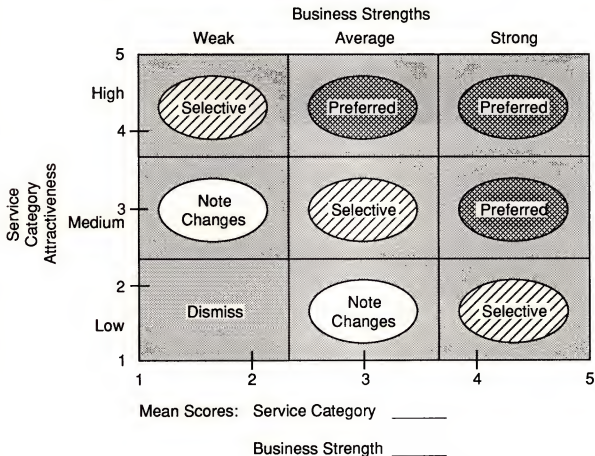
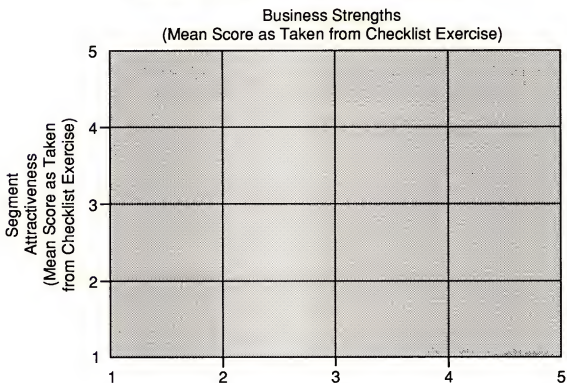
**Rudimentary Model for Assessment of
Extended/Non-Traditional Services Roll-Out**



EXHIBIT A-3

**Rudimentary Model for Assessment of
Extended/Non-Traditional Services Roll-Out:
Reader Worksheet for Plotting Results**







User Questionnaire

The following two questionnaires have been used by INPUT during 1991 to conduct research in the customer support and services area. The findings from these interviews form much of the underlying research for this report.

INTRODUCTION; USER QUESTIONNAIRE

(ASK FOR SPECIFIC CONTACT IF AVAILABLE FROM SAMPLE. IF NONE EXISTS, ASK TO BE CONNECTED WITH THE PERSON RESPONSIBLE FOR THE ACQUISITION OF MAINTENANCE, REPAIR, AND SUPPORT SERVICES FOR THEIR COMPANY'S INSTALLED BASE OF COMPUTER AND ELECTRONIC SYSTEMS AND EQUIPMENT, INCLUDING NETWORKS.)

(INTRODUCTION TO OPERATOR); (IF NECESSARY):

Good morning/afternoon/evening. I'm Mr./Ms. _____ calling long distance from INPUT in _____, and we are conducting a study about the support services available for computer and electronic systems and equipment, including networks.

(WHEN MANAGER COMES TO PHONE: INTRODUCTION TO MANAGER/EQUIPMENT SERVICE MANAGER)

Good morning/afternoon/evening. I'm Mr./Ms. _____ calling from INPUT in _____. We are conducting a study to assess overall service quality with regard to computer and information-processing equipment and systems.

- A. Just to check, do you have computer and information processing equipment operating or otherwise installed at this location?
- ☐ Yes (CONTINUE)
☐ No (THANK RESPONDENT AND TERMINATE)
- B. Do you have managerial responsibility for the ongoing operation and support of these systems and equipment at your company?
- ☐ Yes (GO TO INTRODUCTION)
☐ No (CONTINUE)
- C. May I please speak with that person? (OBTAIN NAME/TITLE/DEPARTMENT AND ASK TO BE CONNECTED)



(NOTE: BEFORE CONTINUING TO MAIN QUESTIONNAIRE, RESPONDENT MUST ANSWER "YES" TO QUESTIONS A AND B)

(INTRODUCTION)

As part of INPUT's continuing research programs, we are conducting a survey of users to assess their service needs and requirements and investigate the sensitivity to developing service issues. Your response will ultimately lead to better support options in the future. We would be happy to supply you with a summary of our findings from the subsequent report.

Would you have a few minutes at this time, or would you prefer I call back at a more convenient time?

☐ IF AVAILABLE, CONTINUE WITH MAIN QUESTIONNAIRE, Q.6

☐ IF NOT AVAILABLE, ARRANGE FOR CALLBACK

Callback Date: _____

Specific Time: _____ AM/_____ PM

MAIN USER QUESTIONNAIRE

I. BACKGROUND (TO BE VERIFIED AND RECORDED AS INTRODUCTION IS CONDUCTED)

A. Known Systems/Equipment:

_____	_____
_____	_____
_____	_____

B. Title of Respondent: (DO NOT READ LIST)

- ☐ MIS Director
☐ Director Data Center Operations
☐ Director of Purchasing
☐ Other (Specify: _____)

(REMAINDER TO BE CONDUCTED AS QUESTIONS TO BE READ VERBATIM)



II. CURRENT SERVICE/SUPPORT STATUS

- For each of the following types of equipment that I list, please indicate approximately how many units are under your charge—that is, where you are responsible for the administration or management of service for that equipment.
- For the equipment categories you mentioned, do you service any of this equipment in-house? If so, exactly what kinds of service do you provide for this equipment?

TYPE OF EQUIPMENT	NUM. OF UNITS	IN- HOUSE SERVICE	KIND OF SERVICE DONE BY IN-HOUSE PERSONNEL
DATA PROCESSING:		Y N	
- Mainframe (MIPS/UNITS)	# _____	1 2	_____
- Minicomputers (MIPS/Unit)	# _____	1 2	_____
- Workstations (H.End PCs)	# _____	1 2	_____
- PCs	# _____	1 2	_____
- CRTs/Data Terminals	# _____	1 2	_____
NETWORKS:			
- Terminal Networks (Nodes)	# _____	1 2	_____
- LANs (# Nodes)	# _____	1 2	_____
PERIPHERALS:			
- Printers, other periphs,	# _____	1 2	_____
- Disk Drives (GigaBytes)	# _____	1 2	_____
OFFICE AUTOMATION:			
- Copiers	# _____	1 2	_____
- FAX machines	# _____	1 2	_____
OTHER:			
_____	# _____	1 2	_____
_____	# _____	1 2	_____
_____	# _____	1 2	_____

- What is the name of your **primary** external service supplier?
Primary Vendor: _____
- How many external service suppliers do you currently have providing service and support for your installed base of equipment?
Number of External Service Vendors # _____



5. Which of the following service features do you have provided to you for those types of equipment you have mentioned? (RECORD BELOW; READ THROUGH ENTIRE LIST)
6. Please rate the importance of each service feature provided to you on a scale from 1 to 5, where 1 = NOT IMPORTANT and 5 = EXTREMELY IMPORTANT. (READ BACK LIST OF SERVICE FEATURES THAT ARE BEING PROVIDED TO RESPONDENT. RECORD BELOW)

SERVICE FEATURE	CURRENTLY HAS W/ SERVICE (Q.5)	RATING OF IMPORTANCE (Q.6)
Parts	1	_____
Labor	1	_____
Preventive Maintenance	1	_____
7-Day/24-Hour Service	1	_____
Guaranteed 4-hour response time	1	_____
Guaranteed 2-hour response time	1	_____
Guaranteed 1-hour response time	1	_____
Unlimited Service Calls	1	_____
Factory Depot Service	1	_____
Replacement/Loaner units	1	_____
Uptime Guarantee	1	_____
On-Site Service Engineer	1	_____
Telephone Support/Help Desk	1	_____
Installations/Moves/Adds	1	_____
Remote Hardware Diagnostics	1	_____
Micro-Code Diagnostics/Repair	1	_____
Other Software Diag./Repair	1	_____

IF YES TO DIAG. QUESTIONS:

7. In the delivery of the software/hardware diagnostics and repair services, do you have access to the service vendor's problem/resolution data base?
- [] Yes [] No
8. Do you have the ability to upload or download problem or solution information to your service vendor?
- [] Yes [] No



9. Do you currently receive any of the following discounts off your service pricing? (RECORD BELOW)
10. If you do not presently receive any discounts, what is your level of interest in the mentioned discounts? Rate 1 to 5, where 1 indicates LOW INTEREST, and 5 indicates HIGH INTEREST.

TYPE OF DISCOUNT	RECEIVES	L.O.I.
Multiyear Contract/Agreement	1	_____
Prepayment	1	_____
Call Screening/Problem Manag. Dispatch Avoidance Meth.	1	_____
Deferred Response	1	_____
Other: (Specify: _____)	1	_____



III. PERCEPTIONS ON EXPANDED/INNOVATIVE SERVICES

11. Do the external customer service vendors provide you with any of the following expanded services or product offerings? (READ THROUGH LIST; RECORD BELOW IN COLUMN A)
12. Of the expanded services provided to you by your service vendors, please rate (on scale from 1 to 5) how important this service is to your company. 1 indicates that the service category is of LOW IMPORTANCE, and 5 indicates that the service category is of EXTREME IMPORTANCE to your company.
13. Please rate the level of performance you receive from your service organization in delivering these expanded services. Again use a scale from 1 to 5, where 1 indicates NOT AT ALL SATISFIED with the service performance and 5 indicates that you are EXTREMELY SATISFIED with the performance of the service organization in delivering these expanded services to you.

EXPANDED SERVICE PRODUCTS	RECEIVES SRV.ITEM (Q.11)	RATE IMP. (1 TO 5) (Q.12)	PERF.RATE (1 TO 5) (Q.13)
PLANNING/DESIGN SERVICES:			
- Design & Engineering	1	_____	_____
- Site Planning	1		
- Purchase Consultation	1		
NETWORK SERVICES:			
- Cabling	1	_____	_____
- Network Maintenance	1		
- Network Management	1		
SOFTWARE AND SERVICES:			
- Applications Training	1	_____	_____
- Standardized Software Products	1		
- Custom Applications Development	1		
HUMAN RESOURCES:			
- Recruitment/Staffing	1	_____	_____
- Temporary Personnel	1		
DISASTER RECOVERY SERVICES:	1	_____	_____
SECURITY SERVICES:		_____	_____
- Network/System Security	1		
- Security Planning	1		

14. Approximately when did your service vendor begin offering these expanded or non-traditional services?

Date expanded services received ____ / ____ / ____



IV. ONE-STOP CUSTOMER/FIELD SERVICE AND SUPPORT

15. Some service vendors are now in the practice of contracting to supply a single point of contact for all of the user's service needs—tying systems software support, applications support, and related services with the more traditional aspects of multivendor hardware services. Are you presently participating in this type of service agreement?
- ☐ Yes (skip to Q.18)
- ☐ No
16. On a scale of 1 to 5, what would be your level of interest in this type of "single-point-of-contact" service arrangement? 1 indicates NO INTEREST, and 5 indicates HIGH LEVEL OF INTEREST.
- | | |
|---------------|---|
| No Interest | 1 |
| | 2 |
| | 3 |
| | 4 |
| High Interest | 5 |
17. How much of a premium would you be willing to pay to have this "single point of contact"?
- | | |
|--|------------------|
| <input type="checkbox"/> Would not pay premium | } (skip to Q.20) |
| <input type="checkbox"/> Uncertain | |
| <input type="checkbox"/> Willing to pay additional 1-5% | |
| <input type="checkbox"/> Willing to pay additional 6-10% | |
| <input type="checkbox"/> Willing to pay more than 10% | |
18. When entering into this "single-point-of-contact" service agreement, was your company required to submit any type of application to be eligible to receive this service?
- ☐ Yes
- ☐ No (skip to Q.20)
19. Which, if any, of the following information was required on this application?
- ☐ Equipment Inventory: ("did this include")
- | |
|---|
| <input type="checkbox"/> Number of Units |
| <input type="checkbox"/> Location(s) of all units |
| <input type="checkbox"/> Manufacturer |
| <input type="checkbox"/> Model Numbers |
| <input type="checkbox"/> Serial Numbers |
| <input type="checkbox"/> Current Warranty Status |
- ☐ Overall Service Expenditure Information
- ☐ Availability of Equipment Service Records



20. Some service suppliers are in the practice of subcontracting certain services to third parties. Do you feel this:

☐ Has a negative impact on service quality
☐ Makes no difference
☐ Has a positive impact on service quality

V. PERCEPTIONS REGARDING SERVICE MARKET AND DEMAND TRENDS

21. Many industry sources cite the advancement of computer and electronics technologies and their applications, especially the expanding use of networks, as creating an increased sensitivity by the user for service and support of this equipment. Compared to, say, two years ago; how much more sensitive are you toward service and support issues in general? Rate with 1 indicating LOW SENSITIVITY and 5 indicating HIGH SENSITIVITY.

Low Sensitivity	1	} (skip to Q.23)
	2	
	3	
	4	
High Sensitivity	5	

22. What issues are most important to you?

☐ Response ☐ No Response

(Probe: network maintenance, response times, configuration design development)

23. Do you consider the support needs of "Open Architectures/Systems" and/or UNIX systems as different from those of other systems?

☐ Yes ☐ No (skip to Q.25)

24. Why?

☐ Response ☐ No Response



25. How much more would you be willing to pay for the exact features and level of service and support you need?

☐ Would not pay additional fees
☐ Uncertain
☐ Willing to pay 1-5% more
☐ Willing to pay 6-10% more
☐ Willing to pay 10% or more

26. **(RESPONDENTS WITH NO SERVICES PROVIDED IN Q.11)**

How likely is it that you will utilize your current service vendors to provide you with the expanded and non-traditional services we've been discussing?

☐ Very Likely
☐ Somewhat Likely
☐ Uncertain
☐ Somewhat Unlikely
☐ Very Unlikely

} skip to Q.29

27. **(RESPONDENTS WITH SOME/ALL SERVICES PROVIDED IN Q.11)**

How likely is it that you will switch service suppliers over the next 12 months?

☐ Very Likely
☐ Somewhat Likely
☐ Uncertain
☐ Somewhat Unlikely
☐ Very Unlikely

} skip to Q.29

28. Why?

☐ Response ☐ No Response

29. How much was paid to external service vendors over the course of 1990 for service and support on all of your establishment's installed equipment base?

[Note ALL exceptions, clarifications] \$ _____

30. How much do you expect this figure to change for 1991?

☐ Increase (by what percent? _____%)
☐ Remain the same (skip to Q.32)
☐ Decrease (by what percent? _____%)



31. Why?

☐ Response ☐ No Response

32. How much do you anticipate this figure to change in the next 5 years?

☐ Increase (by what percent? _____%)

☐ Remain the same

☐ Decrease (by what percent? _____%)

33. Compared to your fiscal year 1990, has the proportion of your total annual operating budget dedicated to service and support changed for 1991?

☐ Increased (by what percent? _____%)

☐ Remained the same

☐ Decreased (by what percent? _____%)

34. To wrap this up, may I ask what you would consider to be the single most important service and support issue for the computer systems user?

(THIS COMPLETES THE QUESTIONNAIRE. I WOULD LIKE TO THANK YOU ON BEHALF OF INPUT FOR HELPING US TO COMPLETE THIS STUDY. TO EXPRESS OUR APPRECIATION FOR YOUR TIME AND EFFORTS, WE WILL BE SENDING YOU A "THANK YOU" PACKAGE CONTAINING A SUMMARY OF THE RESULTS FROM OUR SURVEY. TO MAKE SURE YOU RECEIVE OUR COMPLIMENTARY REPORT SUMMARY, LET ME CHECK THE SPELLING OF YOUR NAME AND ADDRESS INFORMATION. **CONFIRM AND RECORD ON COVER SHEET**)





Vendor Questionnaire

INTRODUCTION/SCREENER; VENDOR QUESTIONNAIRE

(ASK FOR SPECIFIC CONTACT IF AVAILABLE FROM SAMPLE. IF NONE AVAILABLE, ASK TO BE CONNECTED WITH THE PERSON RESPONSIBLE FOR BUSINESS DEVELOPMENT AND MARKETING OF MAINTENANCE, REPAIR, AND SUPPORT SERVICES FOR THE COMPANY.)

(INTRODUCTION TO OPERATOR); (IF NECESSARY):

Good morning/afternoon/evening. I'm Mr./Ms. _____ calling long distance from INPUT in _____, and we are conducting a study about new trends in services delivery in the computer and electronic systems and equipment marketplace.

(WHEN MANAGER COMES TO PHONE: INTRODUCTION TO MANAGER / CUSTOMER SERVICE MANAGER)

Good morning/afternoon/evening. I'm Mr./Ms. _____ calling from INPUT in _____. We are conducting a study to assess new trends in service delivery with regard to computer and information-processing equipment and systems and their users.

- A. Just to check, do you have responsibility for business development and marketing of your company's service portfolio and organization?

[] Yes (GO TO INTRODUCTION)
[] No

- B. May I please speak with that person? (OBTAIN NAME/TITLE/DEPARTMENT AND ASK TO BE CONNECTED, THANK INITIAL CONTACT, AND TERMINATE.)

(NOTE: BEFORE CONTINUING TO MAIN QUESTIONNAIRE, RESPONDENT MUST ANSWER "YES" TO QUESTION A.)



(INTRODUCTION)

As part of INPUT'S continuing research programs, we are conducting a survey to investigate current and developing trends in service products and delivery innovations. Your response would lead to more-effective support options in the future. We would be happy to supply you with a summary of our findings from the subsequent report.

Would you have a few minutes at this time, or would you prefer I call back at a more convenient time?

☐ IF AVAILABLE, CONTINUE WITH MAIN QUESTIONNAIRE, Q.6

☐ IF NOT AVAILABLE, ARRANGE FOR CALLBACK

Callback Date: _____

Specific Time: _____AM/_____PM

MAIN VENDOR QUESTIONNAIRE

I. BACKGROUND (to be verified against sample information during the introduction process)

A. Sample Segment:

- ☐ TPM/ISO/IMO
- ☐ OEM Service Organization
- ☐ VAR
- ☐ Distributor

B. Title of Respondent: (DO NOT READ LIST)

- ☐ Director Customer/Field Service
- ☐ Director Marketing (Service)
- ☐ Director Business Development
- ☐ Other: (Specify: _____)

(BEGIN READING QUESTIONS. PLEASE READ VERBATIM)

1. How would you define your company? Would you consider it to be a:

- ☐ Independent Service Organization (ISO)
- ☐ OEM Service Organization
- ☐ VAR (Value-Added Reseller)
- ☐ Distributor with a service organization

(IF VOLUNTEERED)

☐ Other (Specify: _____)



2. Approximately how many field engineers and/or technicians do you have operating in your service organization in total? (within continental U.S.)?

Number of Field Engineers in U.S.: _____

3. In total, how many offices does your firm operate in the U.S.?

Total Number of Offices in U.S.: _____

II. ONE-STOP CUSTOMER/FIELD SERVICE AND SUPPORT

4. Some industry sources suggest a swing by the user toward contracting with a single company to meet all service requirements—tying systems software support, applications support, and related issues with the traditional aspects of multivendor hardware service. CONSIDERING YOUR CUSTOMER BASE, how strongly do you agree or disagree with this statement? Again use the scale where 1 indicates that you DO NOT AGREE AT ALL with the statement and a 5 indicates that you AGREE STRONGLY.

Do Not Agree	1
	2
	3
	4
Agree Strongly	5

5. Does your service organization offer this type of “single-point-of-contact” service?

☐ Yes (skip to Q.7) ☐ No

6. Do you plan on developing this type of service in the next 12 months?

☐ Yes ☐ No (skip to Q.9)

7. What technology or operational changes, if any, have been implemented to deal with the increased service demand involved with the roll-out and delivery of these new services?

☐ Response ☐ No Response (skip to Q.9)

8. Can you estimate the costs involved with these changes?

Costs of Roll-Out \$ _____



9. In delivering service to the user, have you subcontracted certain service activities to other service vendors?

☐ Have subcontracted
☐ Have not subcontracted (**skip to Q.14**)

10. Which types of services you are most likely to contract out?

☐ Response ☐ No Response

11. Is this subcontracting activity transparent to the user?

☐ Yes, subcontract is unknown to user
☐ No, the user is aware of subcontract

12. Has this subcontracting of service developed into any formal alliances or agreements with other service organizations?

☐ Formal alliances have been made
☐ No formal alliances have been made (**SKIP TO Q.14**)

13. Can you identify the name or type of company you have allied with? What are the general characteristics of the agreement?

Name/Type of Company

Agreement Characteristics

1. _____
2. _____
3. _____
4. _____

III. EXPANSION/INNOVATION OF SERVICES

14. Which of the following types of information-processing equipment do you presently provide service for? (READ LIST AND RECORD IN COLUMN A.)

Which, if any, of these services were recently added to your service portfolio—that is, within the last 6 months? (RECORD IN COLUMN B.)

15. Over the past 12 months, has your service organization voluntarily stopped supplying service on any of these, or other types, of equipment? (READ BACK THROUGH LIST AS NEEDED TO ASSIST RESPONDENT; RECORD IN COLUMN C.)



16. Of those categories of equipment you do not presently service, do you plan on adding this service in the next 12 months? (RECORD IN COLUMN D.)

TYPE OF EQUIPMENT	A	B	C	D
	CURRENTLY SERVICES	RECENTLY ADDED SERVICES	DROPPED SERVICES	PLANS TO ADD IN NEXT 12M
DATA PROCESSING:				
- Mainframes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Mini (Midrange) Comp.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Workstations/PCs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- CRTs/Data Terminals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Terminal Networks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LANs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Peripherals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Disk Drives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OFFICE AUTOMATION:				
- Copiers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- FAX machines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:				
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. In general, can you indicate the primary reason(s) your service organization chose to add or drop these equipment categories to your services? (RECORD APPROPRIATE EQUIPMENT TYPE WITH ASSOCIATED RESPONSE.)

RESPONDENTS WHO RECENTLY ADDED SERVICES

☐ Response

☐ No Response



RESPONDENTS WHO DROPPED SERVICES

☐ Response☐ No Response

18. The continuing delivery of systems and products utilizing advanced technologies to the user is evident. (e.g., CD ROM, virtual networks, image processing, extensive application of LANs)

Please explain any major effects these new technologies have on the service requirements of your customer base? (PROBE)

☐ Response☐ No Response

19. Which of the following service features do you provide to the user for those types of equipment you have mentioned. (RECORD BELOW IN COL. A.)
20. For each service feature you do offer, would you classify that feature as part of your "basic" services or as a "premium" feature?

SERVICE FEATURE	DOES PROVIDE TO USER	FEATURE PERCEIVED "BASIC"	FEATURE PERCEIVED "PREMIUM"
Parts	1	1	2
Labor	1	1	2
Preventive Maintenance	1	1	2
7-Day/24-Hour Service	1	1	2
4-Hour Response Time	1	1	2
2-Hour Response Time	1	1	2
1-Hour Response Time	1	1	2
Unlimited Service Calls	1	1	2
Uptime Guarantee	1	1	2
Depot Service Availability	1	1	2
On-Site Service Engineer	1	1	2
Telephone Support	1	1	2
Replacement/Loaner Units	1	1	2
Installations/Moves/Add	1	1	2



21. Does your company specifically target any vertical-market segments when selling and packaging the service products you have mentioned? If so, which?

Vertical Market Served

22. In addition to the service features traditionally offered by a customer service organization, do you provide any of the following services or products to the user?

EXPANDED SERVICE PRODUCTS	DOES OFFER	RECENTLY ADDED	PLANS TO ADD
PLANNING/DESIGN SERVICES:			
- Design & Engineering	1	2	3
- Site Planning	1	2	3
- Purchase Consultation	1	2	3
NETWORK SERVICES:			
- Cabling	1	2	3
- Configuration Planning	1	2	3
- Capacity Planning	1	2	3
- Network Maintenance	1	2	3
- Network Management	1	2	3
SOFTWARE AND SERVICES:			
- Applications Training	1	2	3
- Standardized Software Products	1	2	3
- Custom Applications Development	1	2	3
HUMAN RESOURCES:			
- Recruitment/Staffing	1	2	3
- Temporary Personnel	1	2	3
DISASTER RECOVERY SERVICES:	1	2	3
SECURITY SERVICES:			
- Network/System Security:	1	2	3
- Security Planning	1	2	3

23. What percentage of your service revenues would you estimate comes from the basic/traditional services, and what percentage comes from the delivery of expanded or non-traditional services?

Traditional/Basic % _____
 Non-traditional/Expanded % _____
 100%



IV. IMPACT OF NEW TECHNOLOGIES

24. Do you provide or require continuing education for your field engineers in any of the following areas? If so, approximately how much time in days or weeks is dedicated to that topic?
(RECORD TIME IN DAYS!!!!)

EDUCATIONAL FOCUS/TOPIC	Prov./Req.	Days/Year
Software Maintenance	1	# _____
Maintenance & Repair of New Hardware Technologies	1	# _____
Customer Relations/ Communications Skills	1	# _____
Sales Development (Cross-Sales Dev.)	1	# _____
Competitive Intelligence Gathering	1	# _____

25. Do you incorporate any level of field service information system in your organization?

☐ Yes (skip to Q.27) ☐ No

(NOTE: *field service information system* (FSIS) is defined as: a software application designed to provide service management with a high level of control over the service infrastructure by providing data regarding operations, performance, accounting, inventory movement, service call histories, field personnel activity, etc.)

26. Do you have plans to implement any level of field service information system within the next 12 months?

☐ Yes ☐ No (skip to Q.35)

27. On a scale of 1 to 5, how would you relate the degree of competitive advantage you feel you have received from the implementation of the FSMS in your service operation? 1 indicates that you believe the FSMS provides you with NO COMPETITIVE ADVANTAGE AT ALL, and 5 indicates that the implementation of the FSMS provides you with SIGNIFICANT COMPETITIVE ADVANTAGE

No Competitive Advantage 1
 2
 3
 4
 Significant Comp. Advan. 5



28. Was this field service information system developed as a custom application or was it purchased as a standardized applications package?

☐ Custom FSMS
☐ Standardized FSMS Package

29. Which of the following functions does your present/planned field service information system support?

☐ Call Handling and Dispatch
☐ Inventory Control
☐ Customer Information File/Database
☐ Service Billing
☐ Remote Hardware Diagnostics
☐ Remote Software Diagnostics/Repair

(DOES THIS SYSTEM SUPPORT ANY OTHER FUNCTIONS?)

☐ Other: (Specify: _____)

30. Were these functions implemented at the same time? If not, which function did you choose to implement first?

Function Implemented First: _____

31. Which, of the system functions you mentioned, do you feel provides the greatest benefit TO THE USER?

☐ Call Handling and Dispatch
☐ Inventory Control
☐ Customer Information File/Data Base
☐ Service Billing
☐ Other: (Specify: _____)

32. Approximately, what has been your total investment in implementing your FSIS to date?

Total FSIS Investment \$ _____



33. On a scale from 1 to 5, please rate the amount of hard cost savings each FSMS function has provided to your organization. 1 indicates NO HARD COST SAVINGS, and 5 indicates SIGNIFICANT HARD COST SAVINGS. You may use any number from 1 to 5.

FROM**Q.29**

	No Hard Savings	1
		2
[] Call Handling & Dispatch		3
		4
	Significant Savings	5

	No Hard Savings	1
		2
[] Inventory Control		3
		4
	Significant Savings	5

	No Hard Savings	1
		2
[] Customer Information File /Data Base		3
		4
	Significant Savings	5

	No Hard Savings	1
		2
[] Service Billing		3
		4
	Significant Savings	5

	No Hard Savings	1
		2
[] Remote Hardware Diagnostics		3
		4
	Significant Savings	5

	No Hard Savings	1
		2
[] Remote Software Diagnostics/Repair		3
		4
	Significant Savings	5



34. Which of these functions provides your service organization with the greatest soft benefits—that is, contributes the most to refining or improving your service delivery and quality? 1 indicates the function offers NO SOFT BENEFITS, and 5 indicates the function CONTRIBUTES SIGNIFICANT SOFT BENEFITS.

FROM**Q.29**

[] Call Handling & Dispatch

No Soft Benefits	1
	2
	3
	4
Significant Soft Benefits	5

[] Inventory Control

No Soft Benefits	1
	2
	3
	4
Significant Soft Benefits	5

[] Customer Information File

No Soft Benefits	1
	2
	3
	4
Significant Soft Benefits	5

[] Service Billing

No Soft Benefits	1
	2
	3
	4
Significant Soft Benefits	5

[] Remote Hardware Diagnostics

No Soft Benefits	1
	2
	3
	4
Significant Soft Benefits	5

[] Remote Software Diagnostics/Repair

No Soft Benefits	1
	2
	3
	4
Significant Soft Benefits	5



V. PERCEPTIONS ON CURRENT CUSTOMER/FIELD SERVICES MARKET

35. Considering the overall services market, how strongly would you agree or disagree with the following statements, where a 1 indicates that you DO NOT AGREE AT ALL and a 5 indicates that you AGREE STRONGLY. You may use any number from 1 to 5.

- A. There will be significant growth in the traditional services (10%+ annually).

Do Not Agree	1
	2
	3
	4
Agree Strongly	5

- B. Significant growth in traditional customer service markets will be seen through innovative marketing and/or the restructuring of service delivery mechanisms.

Do Not Agree	1
	2
	3
	4
Agree Strongly	5

- C. Significant growth will develop through the delivery of allied, non-traditional services by customer service organizations.

Do Not Agree	1
	2
	3
	4
Agree Strongly	5

- D. Overall market growth cannot be assessed in the aggregate. Technology and vigorous user demands have brought the competition to the segment and niche level. Significant growth will be seen in specific areas, not in the overall market.

Do Not Agree	1
	2
	3
	4
Agree Strongly	5

VI. ADDITIONAL CLASSIFICATION

(FINALLY, FOR CLASSIFICATION PURPOSES:)

36. Over the past 12 months, do you estimate that your company's service revenues have:

- ☐ Increased significantly (>10%)
☐ Increased, but at a rate less than 10%
☐ Remained about the same
☐ Decreased

37. To wrap this up, may I ask what you would consider to be the single most important issue for the service vendor in the current marketplace?

(THIS COMPLETES THE QUESTIONNAIRE. I WOULD LIKE TO THANK YOU ON BEHALF OF INPUT FOR HELPING US TO COMPLETE THIS STUDY. TO EXPRESS OUR APPRECIATION FOR YOUR TIME AND EFFORTS, WE WILL BE SENDING YOU A "THANK YOU" PACKAGE CONTAINING A SUMMARY OF THE RESULTS FROM OUR SURVEY. TO MAKE SURE YOU RECEIVE OUR COMPLIMENTARY REPORT SUMMARY, LET ME CHECK THE SPELLING OF YOUR NAME AND THE ADDRESS INFORMATION. CONFIRM AND RECORD ON COVER SHEET.)



